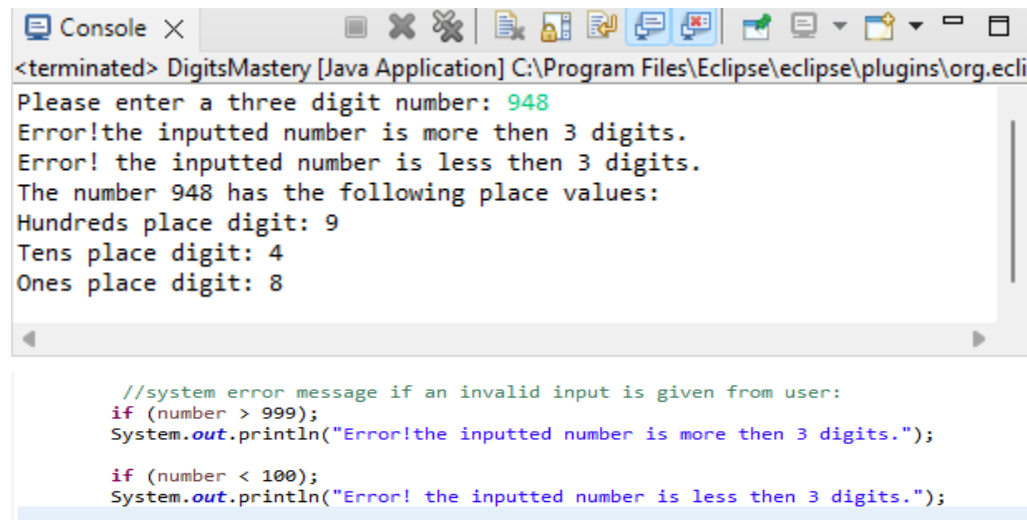


Credit Name: CSE 2140 2nd Language Programming				
Assignment Name: Digits Mastery				
Decribe the errors you've encountered while working on this assignment. What caused the error and how do you overcome the error?				

ERROR 1: both error messages were displaying, when there was nothing wrong with the user input. Code would only run when certain numbers were input by the user. Since this program is meant to display the place values for 3 digit numbers, I coded it so that there would be error messages if the code was more than 3 digits long; or in other words, less than 100 or greater than 999.



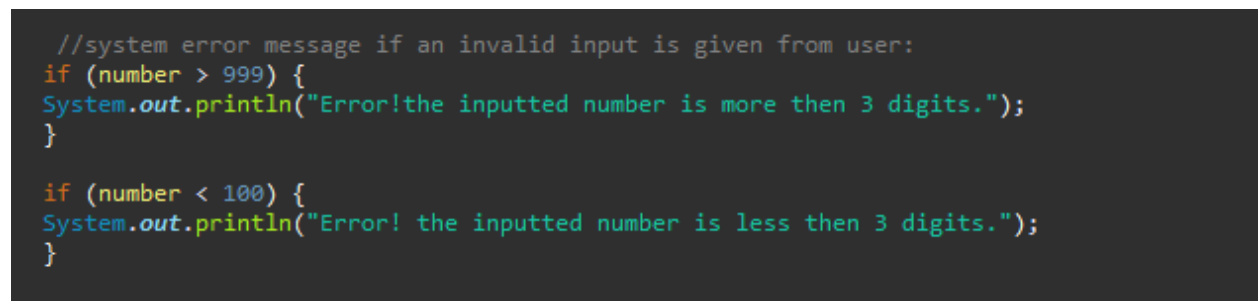
```
<terminated> DigitsMastery [Java Application] C:\Program Files\Eclipse\eclipse\plugins\org.ecli
Please enter a three digit number: 948
Error!the inputted number is more then 3 digits.
Error! the inputted number is less then 3 digits.
The number 948 has the following place values:
Hundreds place digit: 9
Tens place digit: 4
Ones place digit: 8

//system error message if an invalid input is given from user:
if (number > 999);
System.out.println("Error!the inputted number is more then 3 digits.");

if (number < 100);
System.out.println("Error! the inputted number is less then 3 digits.");
```

Fix: instead of using the semicolon ; after declaring each if statement, I used the curly brackets. {}. This resulted in the code running properly for any number, and the error messages only displaying when there is an actual userinput error, but the code didnt stop running after an error was detected. This leads me to my next error and fix.

Fixed result:

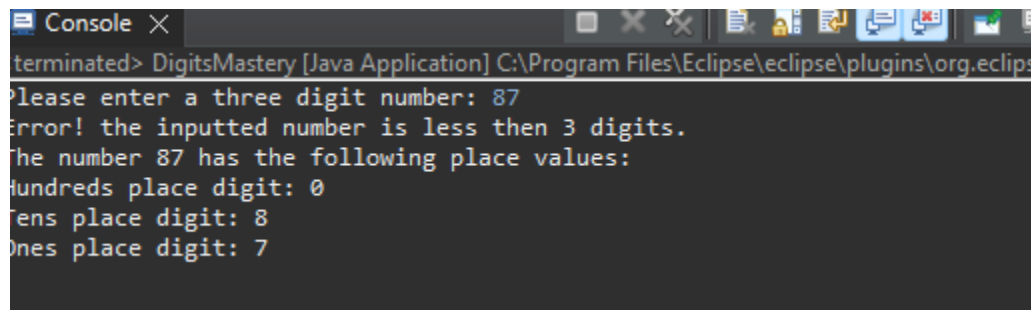


```
//system error message if an invalid input is given from user:
if (number > 999) {
System.out.println("Error!the inputted number is more then 3 digits.");
}

if (number < 100) {
System.out.println("Error! the inputted number is less then 3 digits.");
}
```

This resulted in the code running properly for any number, and the error messages only displaying when there is an actual userinput error, but the code didnt stop running after an error was detected. This leads me to my next error and fix.

## ERROR 2:



```
terminated> DigitsMastery [Java Application] C:\Program Files\Eclipse\eclipse\plugins\org.eclipse
Please enter a three digit number: 87
Error! the inputted number is less then 3 digits.
The number 87 has the following place values:
Hundreds place digit: 0
Tens place digit: 8
Ones place digit: 7
```

To fix the problem of the code not ending even after the error statement, I created an “else if” conditional statement. Here is the basic layout after making this change:

```
//system error message if an invalid input is given from user:
if (number > 999) {
    System.out.println("\nError! Number is more then 3 digits.");
}
if (number < 100) {
    System.out.println("Error! Number is less then 3 digits.");
}

else if (number > 100 && number < 999) {

    //Compute the values:
    hundreds = (number / 100)%10;
    tens = (number / 10)%10;
    ones = (number/1)%10;

    // print output for user
    System.out.println("The number " + number + " has the following place values:");
    System.out.println("Hundreds place digit: " + hundreds);
    System.out.println("Tens place digit: " + tens);
    System.out.println("Ones place digit: " + ones);
}
```

Now, the program works perfectly fine.

If - number is greater than 999, the code displays the error and **ends the program**.

If - number is less than 100, the code displays the error and **ends the program**.

Else if - the number is greater than 100 but less than 999, **continue with the program** and display the output place values.